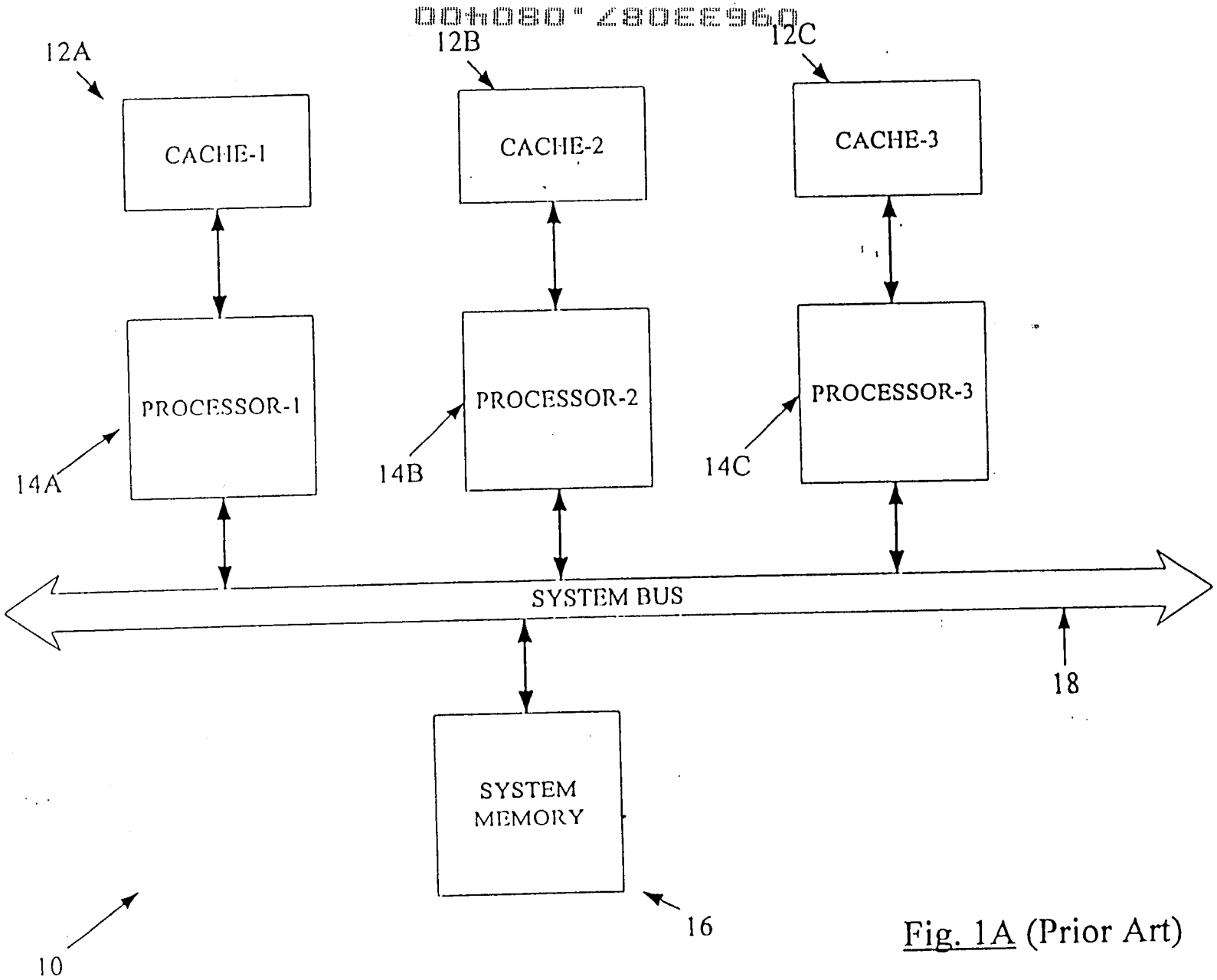

Fig. 1A (Prior Art)

0604600 - 0604600

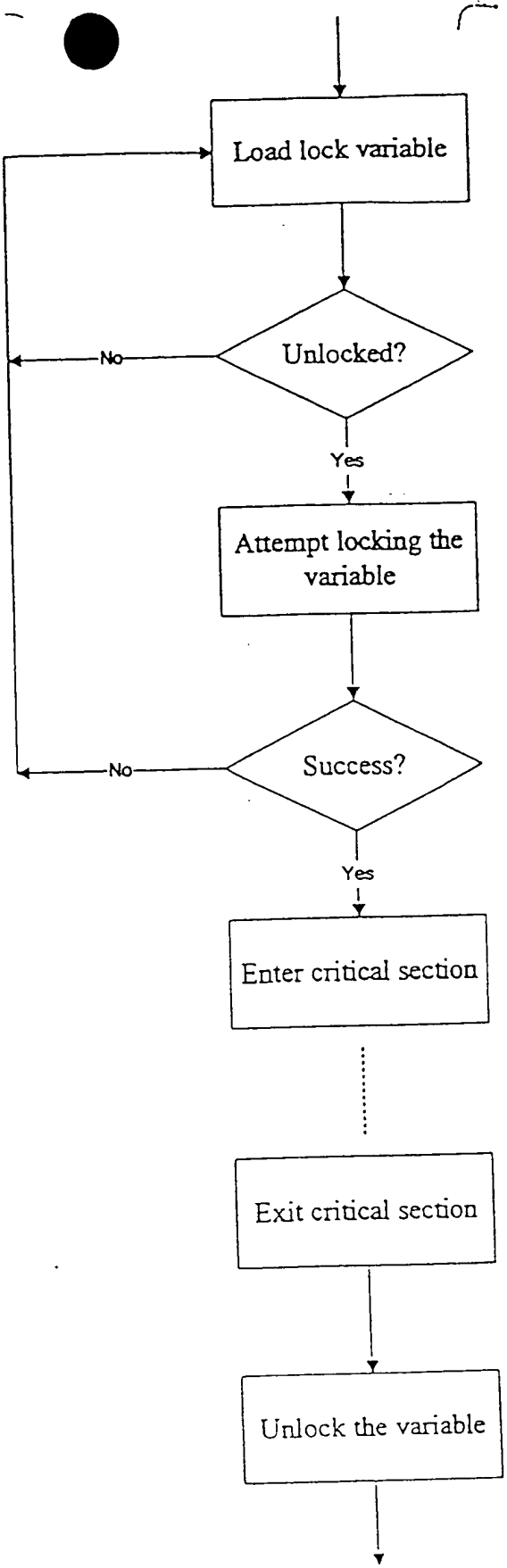

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Fig. 1B (Prior Art)

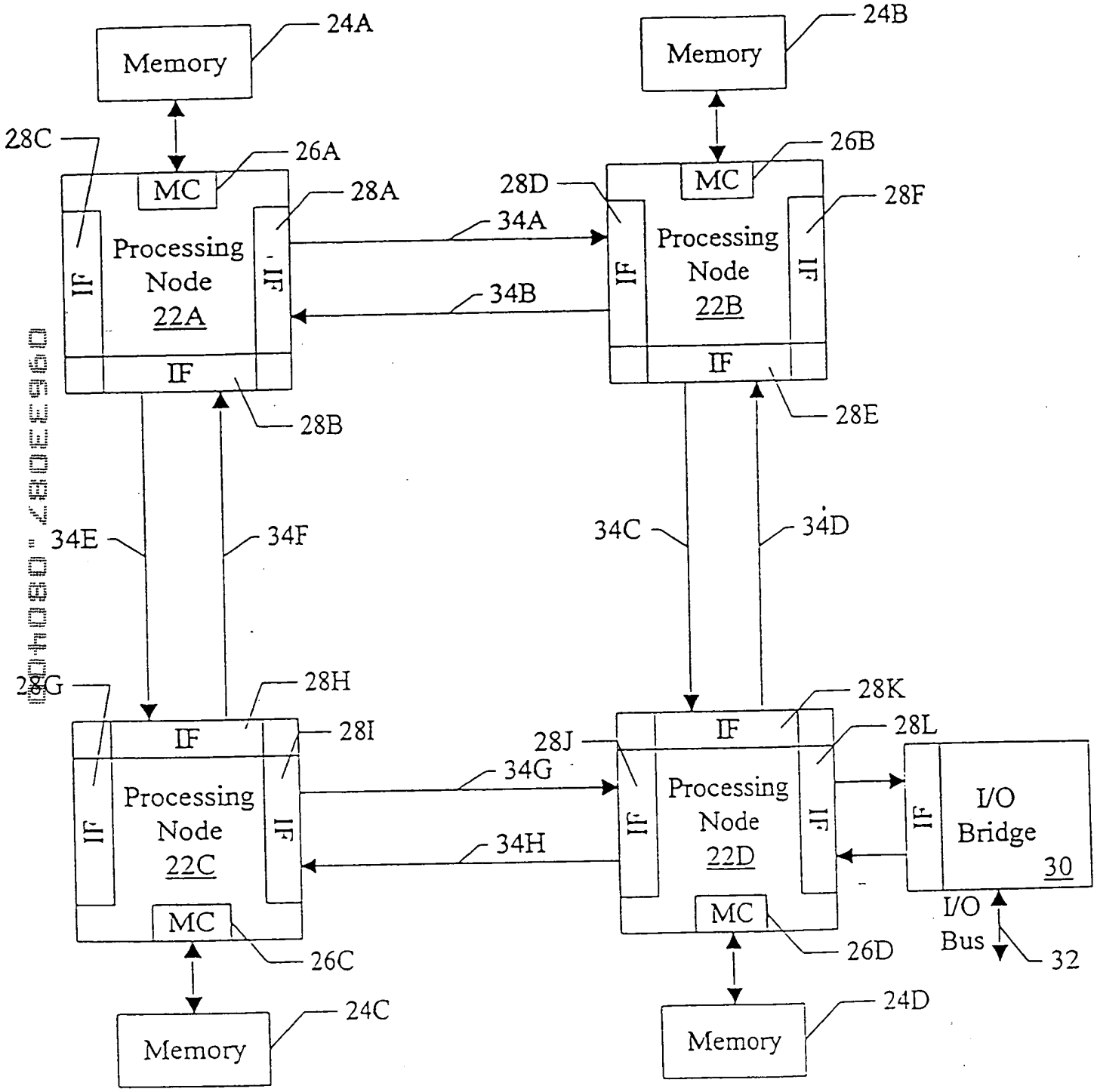
Memory
24A
Memory
24B
28C
26A
MC
28A
28D
MC
26B
28F
34A
Processing Node 22A
IF
IF
IF
34B
Processing Node 22B
IF
IF
IF
28B
28E
34E
34F
34C
34D
28G
28H
28K
IF
28I
28J
IF
28L
34G
Processing Node 22C
IF
IF
Processing Node 22D
IF
IF
I/O Bridge 30
IF
34H
MC
26C
MC
26D
I/O Bus
32
Memory
24C
Memory
24D
20

Fig. 2A

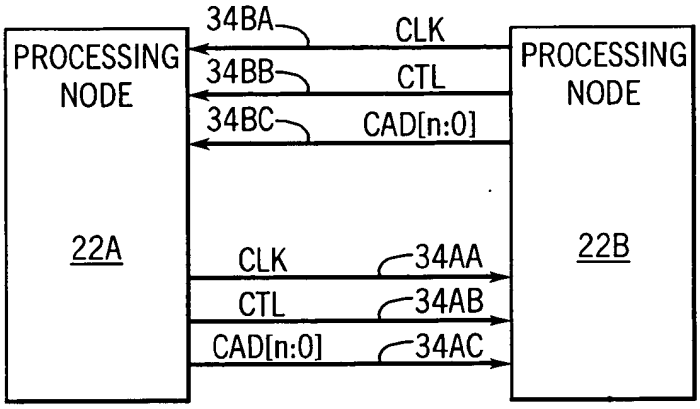
34BA
CLK
PROCESSING NODE
34BB
CTL
PROCESSING NODE
34BC
CAD[n:0]
22A
22B
CLK
34AA
CTL
34AB
CAD[n:0]
34AC

FIG. 2B

Bit Time	7	6	5	4	3	2	1	0
0	Command–Specific		CMD[5:0]					
1	Command–Specific							
2	Command–Specific							
3	Command–Specific							

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FIG. 3A

Bit Time	7	6	5	4	3	2	1	0
0	Src Unit [1:0]		CMD[5:0]					
1	Command–Specific					SrcNode[2:0]		
2	Command–Specific							
3	Addr[7:2]							
4	Addr[15:8]							
5	Addr[23:16]							
6	Addr[31:24]							
7	Addr[39:32]							

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FIG. 3B

Bit Time	7	6	5	4	3	2	1	0
0	Command–Specific		CMD[5:0]					
1	DestNode[2:0]			Dest Unit[1:0]		Command–Specific		
2	Command–Specific							
3	Command–Specific							

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FIG. 4A

Bit Time	7	6	5	4	3	2	1	0
0	Data[7:0]							
1	Data[15:8]							
2	Data[23:16]							
3	Data[31:24]							
4	Data[39:32]							
5	Data[47:40]							
6	Data[55:48]							
7	Data[63:56]							

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FIG. 4B

Bit Time	7	6	5	4	3	2	1	0
0	Mask[7:0]							
1	Mask[15:8]							
2	Mask[23:16]							
3	Mask[31:24]							
4	Data[7:0]							
5	Data[15:8]							
6	Data[23:16]							
7	Data[31:24]							
8+	Packet may contain up to eight double words of data							

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FIG. 5

CMD Code	Command	Packet Type
000000	Nop	Info
000001	VicBlk	Request / Address / Data
000010	Reserved	–
000011	ValidateBlk	Request / Address
000100	RdBlk	Request / Address
000101	RdBlkS	Request / Address
000110	RdBlkMod	Request / Address
000111	ChangeToDirty	Request / Address
x01xxx	Write(Sized)	Request / Address / Data
01xxxx	Read(Sized)	Request / Address
100xxx	Reserved	–
110000	RdResponse	Response / Data
110001	ProbeResp	Response
110010	TgtStart	Response
110011	TgtDone	Response
110100	SrcDone	Response
110101	MemCancel	Response
11011x	Reserved	–
11100x	Probe	Request / Address
11101x	Broadcast	Request / Address
11110x	Reserved	–
111110	Reserved	–
111111	Sync	Info

FIG. 6

0040-0000-0000-0000-0000-0000-0000-0000

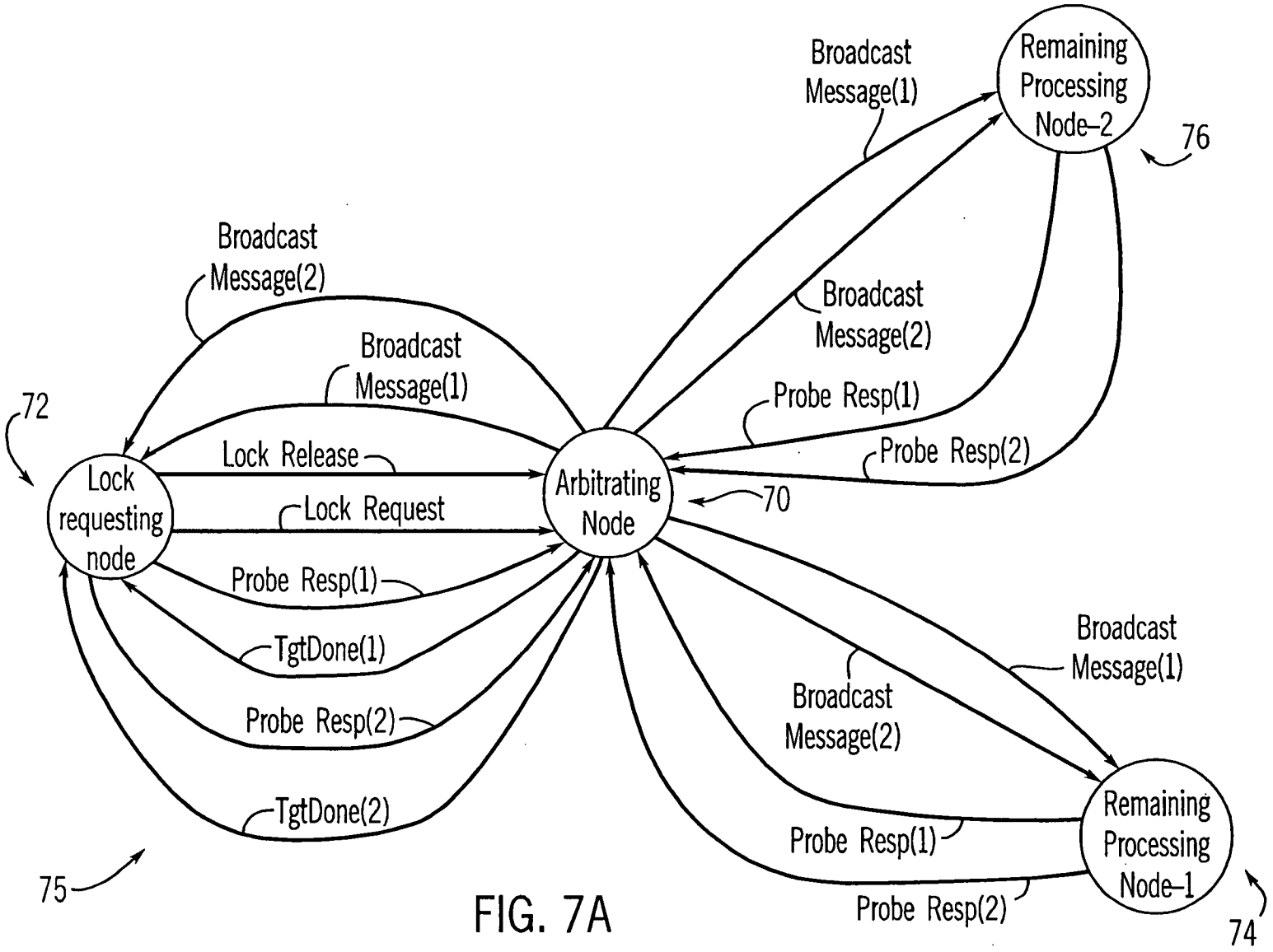
Broadcast Message(1)
Remaining Processing Node–2
76
Broadcast Message(2)
Broadcast Message(2)
Broadcast Message(1)
72
Probe Resp(1)
Probe Resp(2)
Lock Release
Lock requesting node
Arbitrating Node
70
Lock Request
Probe Resp(1)
TgtDone(1)
Broadcast Message(1)
Broadcast Message(2)
Probe Resp(2)
TgtDone(2)
Remaining Processing Node–1
Probe Resp(1)
Probe Resp(2)
75
74

FIG. 7A

0004080 "28054950

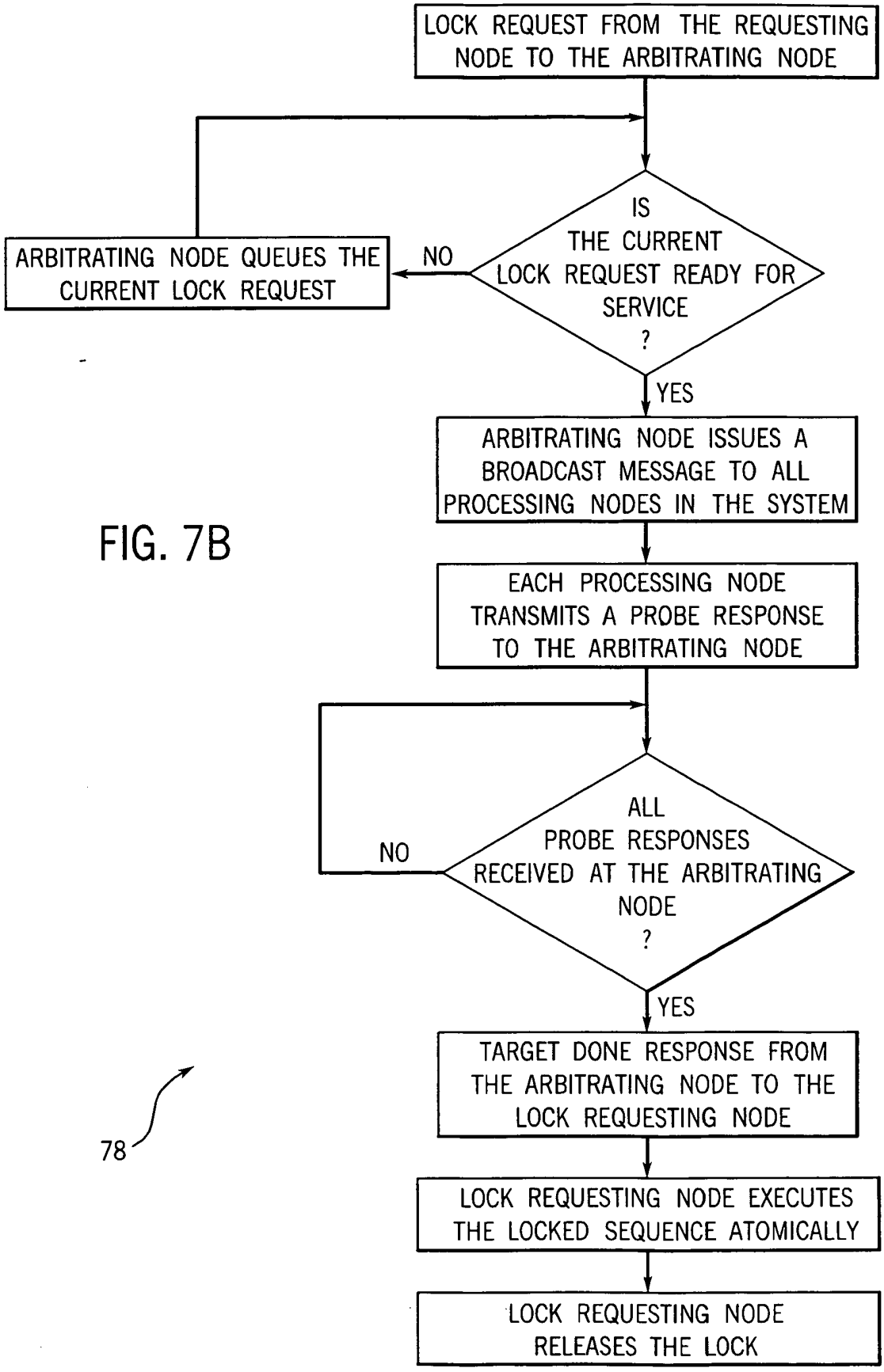

FIG. 7B

Bit Time	7	6	5	4	3	2	1	0
0	SrcUnit [1:0]		CMD[5:0]					
1	DestNode [2:0]			DestUnit [1:0]		SrcNode [2:0]		
2	Mask / Count [1:0]		Compat	SrcTag[4:0]				
3	Addr[7:2]				Lock	Mask / Count[3:2]		
4	Addr[15:8]							
5	Addr[23:16]							
6	Addr[31:24]							
7	Addr[39:32]							

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FIG. 8A

Bit Time	7	6	5	4	3	2	1	0
0	SrcUnit [1:0]		CMD[5:0]					
1	TgtNode [2:0]			TgtUnit [1:0]		SrcNode [2:0]		
2	Rsv			SrcTag[4:0]				
3	Addr[7:2]							Reserved
4	Addr[15:8]							
5	Addr[23:16]							
6	Addr[31:24]							
7	Addr[39:32]							

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FIG. 8B

Bit Time	7	6	5	4	3	2	1	0
0	SrcUnit [1:0]		CMD[5:0]					
1	DestNode[2:0]			DestUnit [1:0]		SrcNode [2:0]		
2	Reserved		Error	SrcTag[4:0]				
3	Shared	Reserved						

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FIG. 8C

Bit Time	7	6	5	4	3	2	1	0
0	SrcUnit [1:0]		CMD[5:0]					
1	DestNode[2:0]			DestUnit [1:0]		SrcNode [2:0]		
2	Reserved		Error	SrcTag[4:0]				
3	Reserved							

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FIG. 8D